

# User Manual of Airwheel Electric Unicycle



This manual includes safety usage instructions. Please ensure this manual is read and understood before you use the product.

The package contains: Airwheel, charger, extension air-pump tube, user manual, learning guide, warranty card, and verification certificate.

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# 1. About Airwheel Self-Balancing Unicycle

Airwheel is the latest high-tech means of transport adopting aerospace attitude control theory, fuzzy algorithm, and gyroscope system to achieve balance by forward and backward leaning. Users can control the vehicle to go forward, accelerate, decelerate, brake or others, by inclining forward or leaning backwards. The left and right balance is similar to the technique of riding a bicycle – achieved through slightly slanting left or right.

Airwheel features as a green product that can be easily carried around on a bus or subway, making it a helpful tool in commuting.

## 2. Safety

There are risks to riding or driving every vehicle. Airwheel is no exception. Please ensure this manual is read and understood beforehand, and do pay extra attention when riding.

### **Important:**

1. Do not make rapid acceleration or deceleration or over incline forward or lean backwards.
2. Do not use Airwheel if there are any risks in accidental falls. Safety first.

### **Attention:**

1. Please wear helmet, gloves, elbow/knee pads or other protection garments.
2. Do not ride Airwheel on busy roads or crowded streets.
3. Do not ride Airwheel on rough or bumpy surfaces, such as muddy or pebbled roads.
4. Do not ride Airwheel on wet, slippery surfaces, especially snowy roads.
5. Do not ride Airwheel on slopes slanting more than 15° angle.
6. Do not allow children under 12 to use Airwheel.
7. Do not ride Airwheel in bleak winter conditions.

Other sudden unpredictable risks may occur during use, please ride with care. Airwheel will not be responsible for any injuries caused by misuse of the product.

## 3. User Guide

### 3.1 Preparation for riding the Airwheel

When you want to start your first ride of Airwheel, please try to wear comfortable casual or sports outfit and wear flat shoes. Please bring the Airwheel to a more spacious place, and ensure that there aren't any significant obstacles.

### 3.2 Steps to riding your Airwheel

1. Hold Airwheel handle with one hand to make sure it is perpendicular to the ground.
2. Unfold the foot platforms and press them into the down position. Place your feet parallel on both sides of the Airwheel. Turn the Airwheel ON.
3. Put one foot on one platform and stand up straight. Shifting your weight forward, lightly push off the ground with the other foot and immediately place it on the other platform so that you straddle the Airwheel, squeezing the pads between your lower legs.
4. Shift your body weight gradually forward to pick up speed. Do not lunge forward.
5. Shift your body weight backward to slow down or stop.
6. To turn, lean the wheel in the direction you want to go
7. IMPORTANT: Twist your feet right and left for balance and steering. Attempting to balance by leaning, tilting and twisting the upper body is much less effective.
8. When you are ready to get off, slow down, stop and step off with one foot; grab the handle. Keep your other foot on the other platform and turn the Airwheel OFF.

### 3.3 Learning Tips

#### 3.3.1 Use the handlebar strap to ensure your driving safety

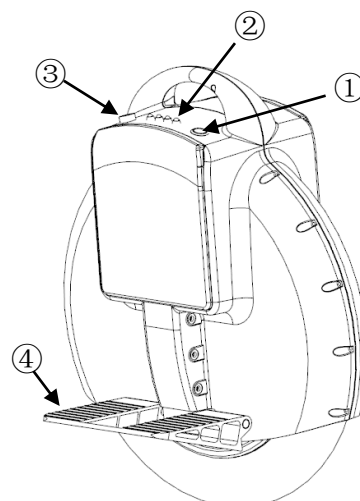
When you are not yet familiar with driving the Airwheel, the handlebar strap can help you avoid falling and injuring.

- 1) Tie the handle bar strap to the Airwheel's handle. Place one foot on the platform and adjust the length of the strap to a comfortable standing position.
- 2) While riding, you can take advantage of the handlebar strap to help keep your balance and avoid losing control.

## 4. Usage of the Airwheel Self-Balancing Unicycle

### 4.1 See diagram for reference:

- ① Power
- ② Battery level
- ③ Charger
- ④ Platform (Foldable)



### 4.2 Starting Airwheel

Place Airwheel vertically on the ground and turn on power. Power and Battery Level LED will illuminate and buzzer will beep, then the vehicle is ready to use.

If Airwheel tilts either forward or backwards after power is switched on, then wait until it reverts to upright position before riding.

### 4.3 Battery Level

A four-bar LED indicator is used to indicate battery level. All four will light up when power level is more than 85% and will go off one by one as the level decreases. Please check power level before usage to ensure there is enough power for the return trip. You may want to charge it every time after use.

When power level is lower than 10%, all four lights will flicker and the buzzer will sound off. The front part of the treadle will lower itself to force you to decelerate and eventually stop. Please do not restart when this occurs to avoid any accidents.

Sustained range will decrease during winter. This is because the battery performance decreases quickly in cold conditions. In -15°C, for example, battery performance is only about half in comparison to that in room temperature.

### 4.4 Speed Control

To prevent injuries caused by speed, Airwheel comes with a speed control design. When speed exceeds 10km/h, the front part of the treadle will rise slowly; when the speed exceeds 16km/h, the treadle will rise to a 10° angle, to prevent you from inclining forward to further accelerate. As the speed decreases, the angle of the treadle will also lower itself.

NOTE: When the speed is about to reach its limit, please do not incline forward anymore to force acceleration to prevent injuries.

## **4.5 Side-Tilting Protection**

When Airwheel tilts sideways more than a 45° angle, for example when Airwheel falls, the control system will activate side-tilt protection. The machine will stop running immediately to prevent injuries.

The buzzer will sound off a long buzz and the LED will flicker when this is activated.

To deactivate this, turn the power off, then restart.

## **4.6 Charging**

Plug in the power source after inserting the charger plug, or else the charger will not activate. This can also prevent potential risks, to ensure a safer charge.

Airwheel provides a high-power charger. During normal conditions, only 45 mins is needed to be fully charged, 30 mins allows 80% charged. The red light on the charger indicates charging, green indicates charging complete.

If not in urgent need, please wait until charging complete before unplugging, because after charging, the protection circuit will perform power flow equilibrium.

## **4.7 Water Resistance**

The water resistance level of Airwheel is IP 56, allowing it to pass through water of no deeper than 10 mm. It can be used in light rain, but do not steep the vehicle in water or take long rides in heavy rain.

## 5. Maintenance

### 5.1 Storage

Please store Airwheel in a dry place. If left unused, recharge the battery every two months to maintain longevity of the battery.

### 5.2 Inflation

Use the extension inflation tube to inflate the tire. Without the tube, you will not be able to pump air into the wheel.

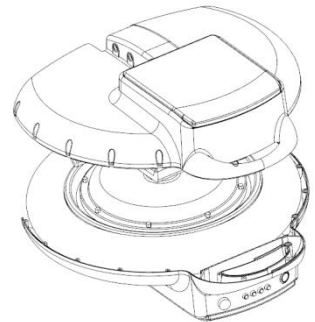
### 5.3 Changing tires

To repair or change the inner or outer tires, open the side of the cover without the indicator lights. First, unscrew the 14 screws on the sides, then the six at the center. Now the side cover can be opened. Give care when disassembling the connecting terminal. No not force disconnection.

**Note:**

A: Plugging to power source after maintenance may cause sparks. This is normal. Do not panic.

B. Do not open the side with the lights or the aluminum panel. Opening any part other than instructed in this manual will forfeit your warranty rights.



## 6. Repair

Please keep the warranty and proof of purchase (i.e., receipt)

Limited warranty:

1. 1 year for vehicle, except battery or other consumables
2. 6 months for battery; 1 month for inner and outer tires.

The warranty will not be covered under the following conditions:

1. Malfunction due to misuse
2. Malfunction caused by unauthorized modifications, disassembling, or repair.
3. Accidental damage or malfunction due to unsuitable storage
4. Unmatched warranty/proof of purchase and product
5. Surface damages
6. Disassembling parts unspecified by this manual.
7. Damage or malfunction caused by long rides in the rain or soaking in water